

CLAIMS: I claim as the subject of my invention:

1. A conductive metallic soil penetrating electrode for use in making an electrical connection with soil for the purpose of measuring soil electrical parameters, that has a long, small angle conical part that is in intimate electrical contact with the soil.
2. A conductive metallic soil penetrating electrode described in Claim 1 that has a shoulder that establishes the major diameter of the conical part, said shoulder to be used as a gauge showing when the electrode has been driven to the correct depth into the soil.
3. A conductive metallic soil penetrating electrode described in Claims 1, and 2 that has a shaft that is undercut from the major diameter of the conical part at said shoulder, said undercut preventing any loose soil particles that may fall in the hole from making a significant change in the electrode contact area with the soil.
4. A conductive metallic soil penetrating electrode described in Claims 1, 2, and 3 that has a hole drilled perpendicular in the undercut shaft into which a metal rod can be placed to allow the electrode to twisted to facilitate removal from compact soils.

Abstract of the Disclosure

This disclosure describes a Soil Penetrating Electrode with Conical Taper for use with instrumentation for measurement of the electrical properties of soil in situ. The Electrode shape and configuration solves problems of stable and reliable contact with the soil, repeatable contact area, and ease of use by the operator.

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